

JCS22 U.S. PTO
05/31/00

06-01-00

A

Patent Application
Commissioner of Patents
and Trademarks
Washington, D.C. 20231

JCS22 U.S. PTO
05/31/00

Enclosed for filing is a utility patent application entitled
COVER FOR AN AIR REGISTER
by **Samuel Richardson III**

This is a _____ of application Serial No. _____ filed _____, 19 ____.

- Enclosed is a 12 page specification.
 Enclosed are 4 sheets of drawings.
 Enclosed is a Declaration.
 Enclosed is a verified statement to establish small entity status.
 Enclosed is an Assignment for recordation.
 Enclosed is a Prior Art Disclosure.
 Enclosed is a Document Disclosure Reference Letter
 Enclosed is a Petition to Make Special
 Enclosed is a confirmation of receipt postcard

The filing fee has been calculated as shown below:

Utility application

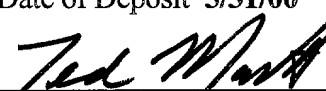
1. Basic filing fee: \$345

TOTAL FILING FEE = \$345

Check No. 006 is enclosed.

I hereby certify that this paper or fee is being deposited with the United States Postal service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

Label No. EJ650951950US
Date of Deposit 5/31/00



Ted Masters Reg. No. 36,209

Applicant: **SAMUEL RICHARDSON III**

For: **COVER FOR AN AIR REGISTER**

**VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY
STATUS (37 CFR 1.9(f) and 1.27)**

As a below named inventor, I hereby declare that I qualify as an independent inventor as defined in 37 CFR 1.9(c) for purposes of paying reduced fees under section 41(a) and (b) of Title 35, United States Code, to the Patent and Trademark Office with regard to the invention entitled **COVER FOR AN AIR REGISTER** described in

- the specification filed herewith
 application serial no. ___, filed ____.
 patent no. ___, issued ____.

I have not assigned, granted, conveyed or licensed and am under no obligation under contract or law to assign, grant, convey or license, any rights in the invention to any person who could not be classified as an independent inventor under 37 CFR 1.9(c) if that person had made the invention, or to any concern which would not qualify as a small business concern under 37 CFR 1.9(d) or a nonprofit organization under 37 CFR 1.9(e).

Each person, concern or organization to which I have assigned, granted, conveyed, or licensed or am under an obligation under contract or law to assign, grant, convey, or license any rights in the invention is listed below:

- no such person, concern, or organization
 persons, concerns or organizations listed below*

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b))

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

SAMUEL RICHARDSON III

NAME OF INVENTOR



Signature of Inventor

5/24/00
Date

TITLE: COVER FOR AN AIR REGISTER

INVENTOR: SAMUEL RICHARDSON III

5

TECHNICAL FIELD

The present invention pertains generally to forced air systems which deliver air to
10 interior spaces through air registers or vents, and in particular to a cover which removably
attaches to the air register, and which contains a replaceable scented pad.

BACKGROUND ART

15

Devices relating to air registers and various attachments thereto, and devices for
treating air are well known in the art. For example, U.S. Patent 1,496,326 shows an air
purifier which consists of a deodorant holder which can be hung upon a wall, for instance
in a clothes closet. U.S. Patent 4,903,584 illustrates a deodorizing air vent attachment.

20

The device comprises a vent fitting mounting surface and a deodorant holding region
supported by the mounting surface. The deodorant holding region is itself ventilated for
air dispersal of the deodorant supported in the holding region. U.S. Patent 5,240,487
defines a warm air register filter and scent dispenser. A frame carries a variable flow
scent dispenser and supports an air filter. The frame, dispenser and filter are inserted as a
25 unit into a forced air heating and/or cooling system duct adjacent to the duct outlet
through a floor or wall register. The scent dispenser is a container for scented air
freshening material and has apertures through opposite walls which are disposed
traversely to the direction of air flow. U.S. Patent 5,240,653 discloses a house freshener
consisting of a basket fitting holding an air filter which is attached directly to the duct
30 covering grill within a room. Various air fresheners and germicidal agents may be

retained within a particular basket attached to a grill, as can a charcoal filtering agent, and in one preferred embodiment, a plurality of these baskets may be interconnected to enhance the effectiveness of the invention. U.S. Patent 5,258,051 portrays a scented air filter for use with a forced air handling system. The filter has a pad of air-permeable material held in a bordering frame. The bordering frame has a generally U-shaped cross section with an opposing legs extending a short distance over the edge of the pad of air-permeable material. A scented material is placed in the frame. U.S. Patent 5,314,669 comprises a method an apparatus for dispensing scent into the air. The device includes an inner cylindrical member with vents, with a retaining carriage which is capable of

5 housing at least two separate and distinct scented media, and an outer cylindrical member with vents. U.S. Patent 5,368,822 consists of a vent scent adapter having a housing having a front face with vents and a support on a backside for securing the housing to a vent of a blower system. A fragrance block having angular passages is inserted into the housing so that air from the blower system passes through the fragrance block and out

10 through the vents in the housing. U.S. Patent 5,422,078 describes an apparatus for providing a scent. The device includes a reusable holder having a connecting means and a scented card insertable into the holder. The connecting means can be a clip which is connectable to a louver of an air duct outlet register of a forced air system or to a fan guard of a utility fan. U.S. Patents 5,547,636 and 5,861,128 include a scented air

15 refreshening device and method of making same. An air freshening device is made from a solution of a polymer and a fragrant material, which is applied to an air permeable substrate. A solid fragrant residue is formed on the substrate. The air freshening device is attached to an air filter in a forced air heating, ventilating, or cooling system. U.S. Patent 5,817,168 depicts an aromatic filter system for an HVAC system. The system has a

20 rectangular frame with a central opening. A conventional filter spans the central opening for interaction with the incoming forced air. A grid spans the filter on the incoming side, the grid presenting a plurality of horizontal and vertical spaced-apart strands having aromatic particle impregnated therein. U.S. Patent 5,820,791 shows a fragrance dispenser for air treatment apparatus. The device is used in conjunction with an air circulation

25 system of a building for impregnating the air with an aromatic scent. The device

30

comprises a combination of integrally mixed plastic with a scent substance formed through a manufacturing process that produces a shape for the device which permits it to be removably attached to an air filter. U.S. Patent 5,863,310 illustrates a grill/filter mounting assembly for mounting in the exit or entrance wall opening of a forced air duct

5 wherein the duct plate may be installed in a hinged relation to the duct enabling easy access to the duct opening.

DISCLOSURE OF INVENTION

The present invention is directed to a cover for an air register of an air
5 conditioning, heating, or ventilation system. The cover includes a scented pad which
imparts an aroma or therapeutic fragrance to air blowing through the register. The cover
may be retrofitted to any existing air register. A preferred name for the present invention
is "SCENT-A-VENT".

The retrofitted cover is designed to work with the existing vent registers in a
10 home or office. The cover can be easily attached directly over an existing (floor, wall or
ceiling) vent register by using Velcro™, adhesive, or magnets located on the back of the
cover. Once attached the scented cartridge can be placed on the sliding scented filter tray
and then closed. To maximize affects of the present invention, the ventilation system
needs to be activated. A user can enjoy the aromatherapy of the present invention when
15 using heating or air-conditioning in the home or office.

Some of the many advantages of the present invention are:

- The Scent-A-Vent Cover System can easily be attached to a floor, ceiling or
wall existing vent register magnetically, with an adhesive or with Velcro™.
- The uniquely shaped scented pad is designed to mirror the slits or openings on
the face of the cover. This will allow the air to pass through the present
invention without interrupting the normal airflow.
- The scented pad or cartridge can be scented with natural oils used in Aroma
Therapy products.
- The scented pad can be reused by utilizing drops or sprays. This will extend
the life of the scented pad.
- The scented pad can come in regular and hypoallergenic scents.
- The cover has a sliding tray or drawer for easy access when inserting and
removing the scented pad.

- The cover also comes in a retrofitted floor design having beveled edges which helps to prevent tripping when walking by or over the cover.
- The present invention is designed to fit any existing ventilation system's register, commercial or residential. It can easily be installed by simply attaching the unit directly over the existing register.

5 In accordance with a preferred embodiment of the invention, a cover which can be removably attached to the air register of a ventilation system includes a first frame which has a plurality of spaced-apart columns. A second frame resembling a bottomless drawer
10 or tray is slidably received by the first frame. A scented pad or cartridge is removably insertable into the second frame.

15 In accordance with an important aspect of the invention, the scented pad also has a plurality of spaced-apart columns which match the pattern of the plurality of columns on the first frame, so that when the scented pad is installed in the second frame, and the second frame is fully inserted into the first frame, the columns of the scented pad align with those of the first frame, thereby minimizing interference with air flow.

In accordance with an important feature of the invention, attachment devices are disposed upon the rear of the cover to permit attachment to the air register.

20 In accordance with another important aspect of the invention, the second frame may either be entirely removable from the first frame, or the second frame may be captively held by the first frame at an outermost position.

25 Other features and advantages of the present invention will become apparent from the following detailed description, taken in conjunction with the accompanying drawings, which illustrate, by way of example, the principles of the invention.

BRIEF DESCRIPTION OF DRAWINGS

- FIG. 1 is a front elevation view of a cover for an air register in accordance with
5 the present invention;
- FIG. 2 is a top plan view;
- FIG. 3 is a side elevation view;
- FIG. 4 is an opposite side elevation view;
- FIG. 5 is a rear elevation view;
- 10 FIG. 6 is a front elevation view showing a second frame removed from a first frame, and a scented pad inserted in the second frame;
- FIG. 7 is an exploded perspective view of an air register, the cover including a first frame, the second frame, and the scented pad;
- 15 FIG. 8. is a perspective view of the cover of the present invention installed on the air register;
- FIG. 9 is a front elevation view of showing the second frame captively held at an outermost position by the first frame; and,
- FIG. 10 is a perspective view of an embodiment wherein the edges of the cover are beveled.

MODES FOR CARRYING OUT THE INVENTION

Referring initially to FIGs. 1, 2, 3, 4, 5, and 7, there are illustrated front

5 elevation, top plan, side elevation, opposite side elevation, rear elevation, and exploded perspective view respectively of a cover for an air register in accordance with the present invention, generally designated as 20. Cover 20 includes a first frame 22 having a plurality of spaced-apart first columns 24. In a preferred embodiment first columns 24 are sized and spaced to match the vanes 502 of air register 500 which is mounted in a
10 wall, ceiling, or floor 504. A second frame 26 is slidably received by first frame 22 in drawer-like fashion. A scented pad 28 is removably insertable into second frame 26, and rests upon a ledge 30. Also, in a preferred embodiment, first frame 22, second frame 26, and scented pad 28 have a substantially rectangular shape, and cover 20 is shaped and dimensioned to be placed over and cover air register 500.

15 Scented pad 28 has a plurality of spaced-apart second columns 32 which are congruent with the plurality of first columns 24 of frame 22. So that, when scented pad 28 is inserted into second frame 26, and second frame 26 is slidably inserted into first frame 22, the plurality of second columns 32 substantially align with the plurality of first columns 24. It may be appreciated that while in the shown embodiment first frame 22
20 and scented pad 28 each have seven columns, any number of columns may be employed.

Cover 22 has a back side 34 having a plurality of attachment devices 36 for attaching cover 22 to air register 500. Attachment devices 36 may include any one of magnets, adhesive, and hook and loop fasteners.

25 Referring now to FIG. 6, there is illustrated a front elevation view showing second frame 26 entirely removed from first frame 22, and scented pad 28 inserted in second frame 26.

FIG. 8. is a perspective view of cover 20 of the present invention installed over air register 500.

FIG. 9 is a front elevation view of showing second frame 26 captively held at an outermost position by first frame 22. That is, second frame 26 cannot be totally removed from first frame 22 as was the case in FIG. 6.

FIG. 10 is a perspective view of a second embodiment, generally designated as 5 120, wherein the edges 40 of cover 20 are beveled. This embodiment is found useful when cover 20 is placed over a floor air register 500, in that it minimizes abrupt contact by people walking on cover 20. Cover 120 also includes a pair of runners 50 which are used to longitudinally engage air register 500, thereby holding cover 120 firmly in place.

10 In terms of construction, in a preferred embodiment the present invention will be fabricated from durable plastics that can undergo hot and cold temperature changes. Also, the present invention may be fabricated in a plurality of sizes and shapes to accommodate any type air register.

The preferred embodiments of the invention described herein are exemplary and 15 numerous modifications, dimensional variations, and rearrangements can be readily envisioned to achieve an equivalent result, all of which are intended to be embraced within the scope of the appended claims.

I claim:

1. A cover for an air register, comprising:

- 5 a first frame having a plurality of first columns;
 a second frame slidably received by said first frame;
 a scented pad removably insertable into said second frame.

2. A cover according to Claim 1, further including:

- 10 said scented pad having a plurality of second columns congruent with said plurality of first columns; and,

so that when said scented pad is inserted into said second frame, and said second frame is slidably inserted into said first frame, said plurality of second columns substantially align with said plurality of first columns.

- 15 3. A cover according to Claim 1, further including:

 said first frame, said second frame, and said scented pad each having a substantially rectangular shape.

- 20 4. A cover according to Claim 1, further including:

 said cover including a back side having a plurality of attachment devices for attaching said cover to the air register.

5. A cover according to Claim 4, further including:

- 25 said attachment devices including one of magnets, adhesive, and hook and loop fasteners.

6. A cover according to Claim 1, further including:

 said second frame entirely removable from said first frame.

7. A cover according to Claim 1, further including:

 said second frame captively held at an outermost position by said first frame.

8. A cover according to Claim 1, further including:

5 said cover shaped and dimensioned to be placed over and cover the air register.

9. A cover according to Claim 1, further including:

 said cover having beveled edges.

10 10. A cover according to Claim 9, further including:

 said cover including a pair of runners which longitudinally engage the air
register.

11. A cover according to Claim 1, further including:

15 said scented pad having a plurality of second columns congruent with said
plurality of first columns;

 so that when said scented pad is inserted into said second frame, and said
second frame is slidably inserted into said first frame, said plurality of second columns
substantially align with said plurality of first columns;

20 said first frame, said second frame, and said scented pad each having a
substantially rectangular shape;

 said cover including a back side having a plurality of attachment devices for
attaching said cover to the air register;

25 said attachment devices including one of magnets, adhesive, and hook and loop
fasteners;

 said second frame entirely removable from said first frame; and,

 said cover shaped and dimensioned to be placed over and cover the air register.

12. A cover according to Claim 1, further including:

said scented pad having a plurality of second columns congruent with said plurality of first columns;

 so that when said scented pad is inserted into said second frame, and said second frame is slidably inserted into said first frame, said plurality of second columns
5 substantially align with said plurality of first columns;

 said first frame, said second frame, and said scented pad each having a substantially rectangular shape;

 said cover including a back side having a plurality of attachment devices for attaching said cover to the air register;

10 said attachment devices including one of magnets, adhesive, and hook and loop fasteners;

 said second frame captively held at an outermost position by said first frame;
and,

 said cover shaped and dimensioned to be placed over and cover the air register.

ABSTRACT

A cover (20) for an air register (500) includes a first frame (22) having a plurality
5 of first columns (24). A second frame (26) is slidably received by first frame (22) in
drawer-like fashion. A scented pad (28), having a congruent plurality of second columns
(32), is inserted in second frame (28) to impart a fragrance when air flows from air
register (500).

1/4

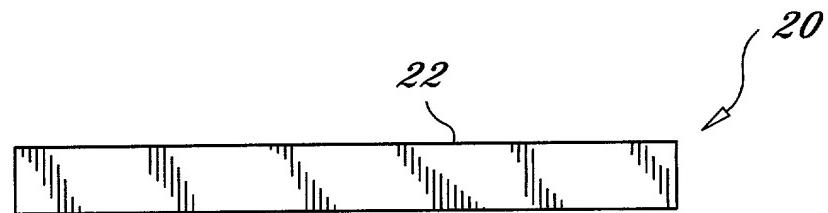


FIG. 2

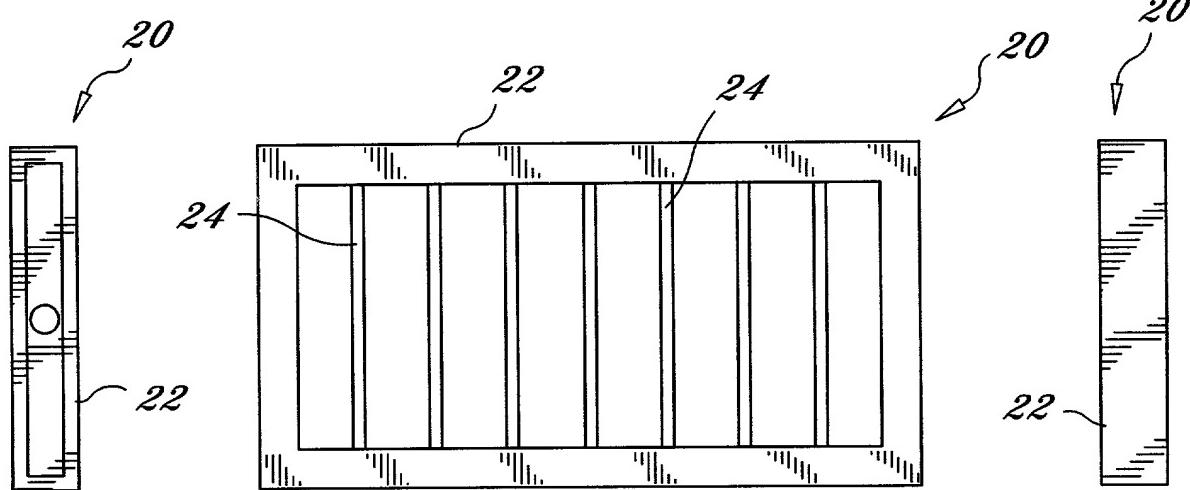


FIG. 3

FIG. 1

FIG. 4

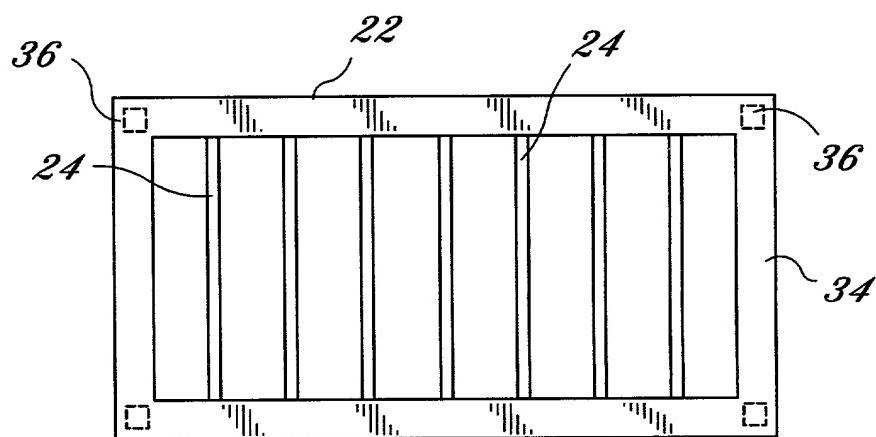
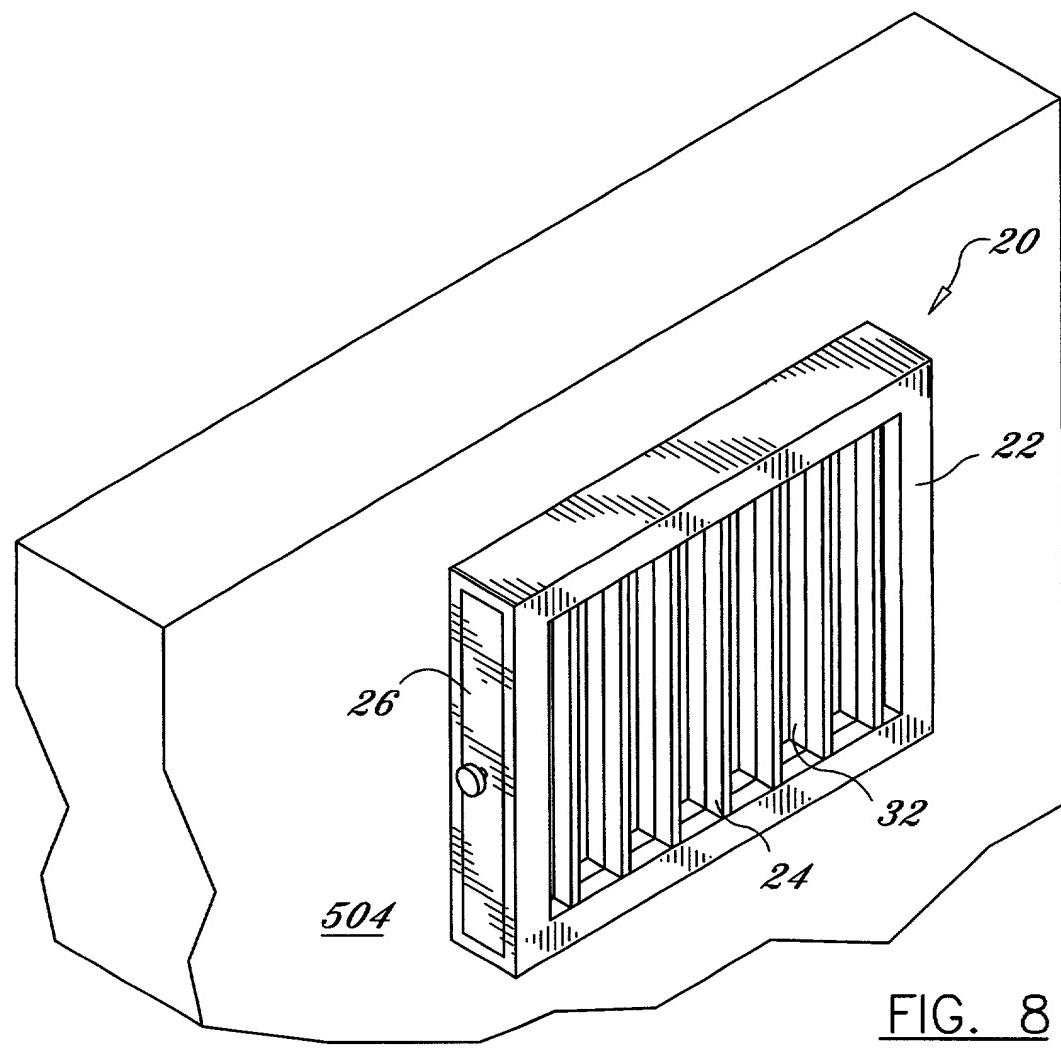
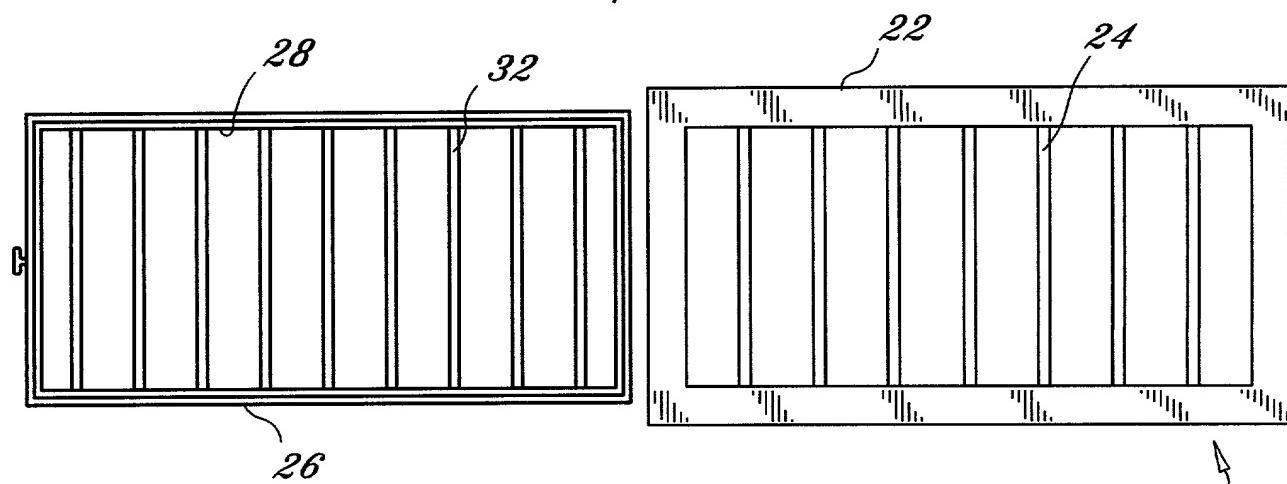


FIG. 5

2/4



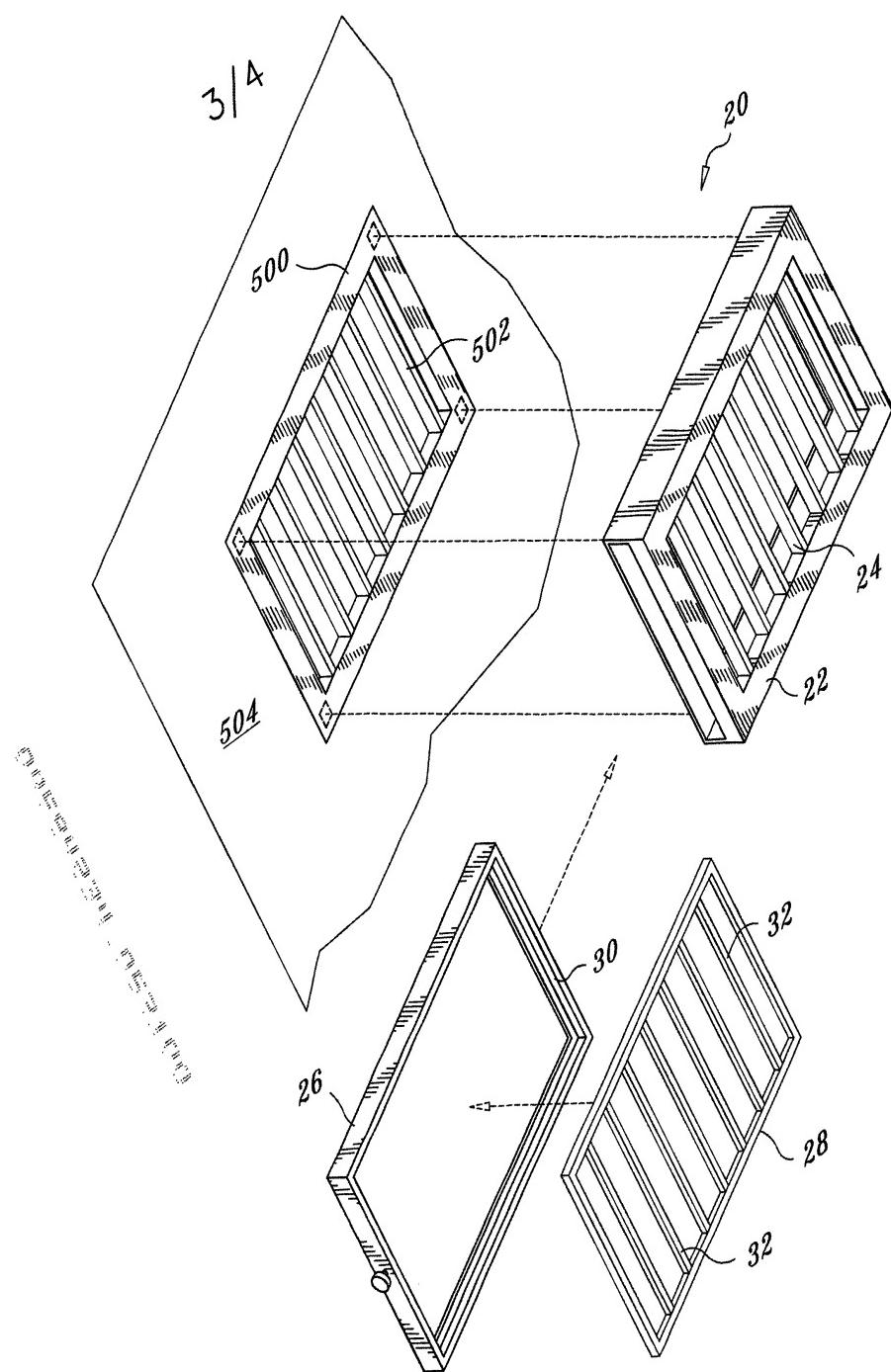


FIG. 1

4/4

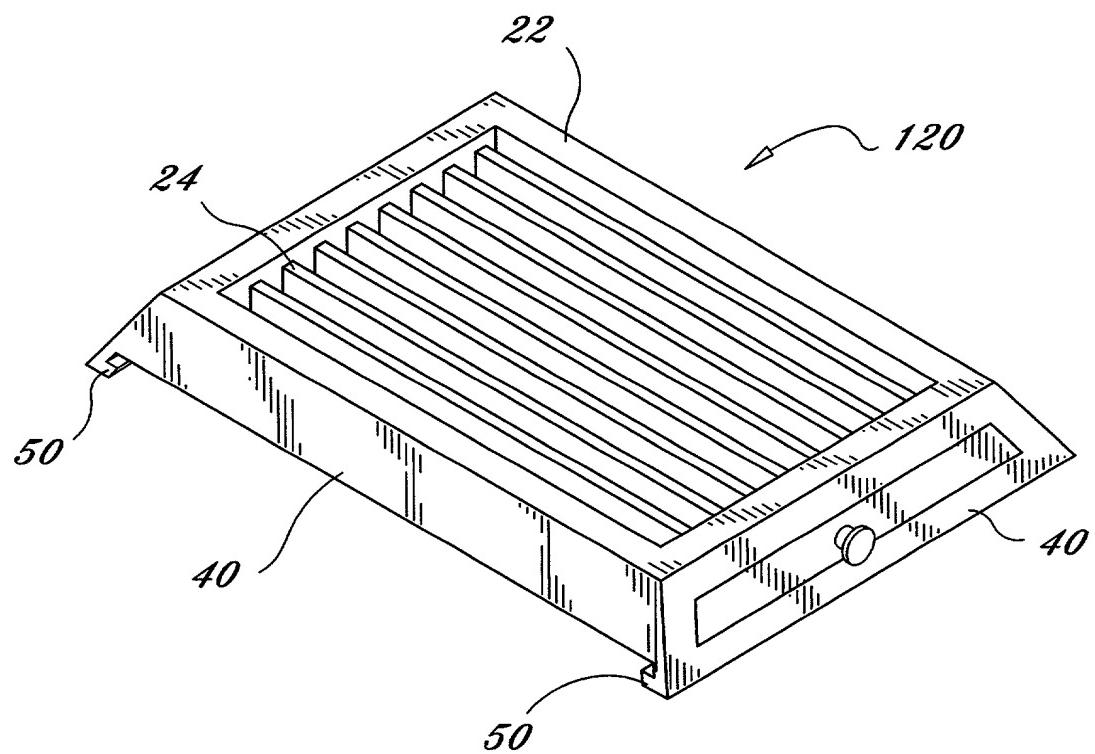
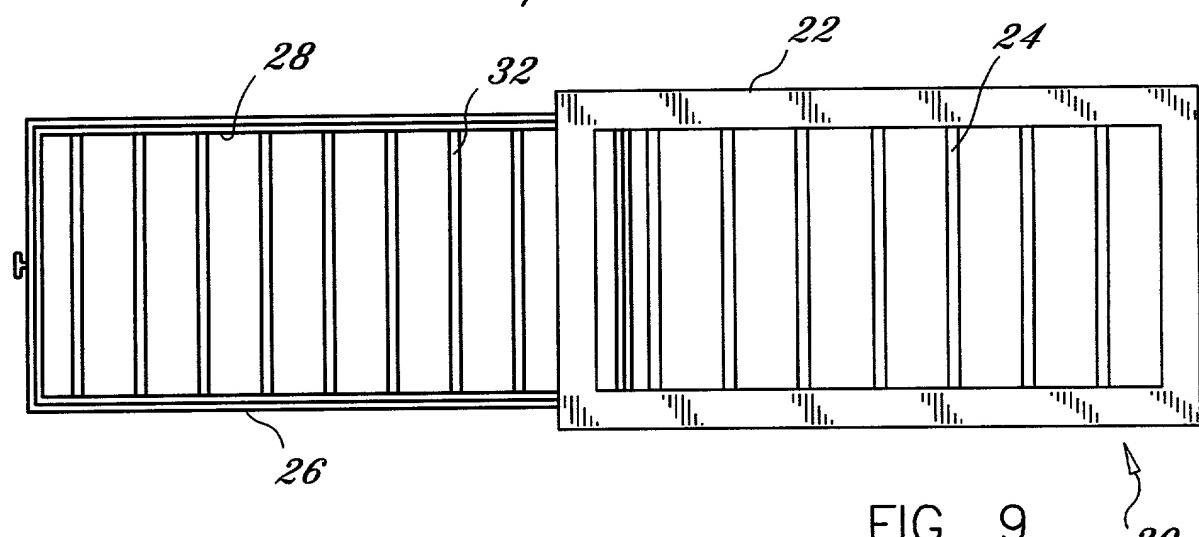


FIG. 10

DECLARATION FOR PATENT APPLICATION

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below.

I believe I am the original, first sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled **COVER FOR AN AIR REGISTER** the specification of which

x is attached hereto.

— was filed on _____ as Application Serial No.

— and was amended on _____ (if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above. I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, Section 1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

Number	Country	Date Filed	Yes	No
I hereby claim the benefit under Title 35, United States Code, §119(e) of any United States provisional application listed below:				

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

Appl. Ser. No.	Filing Date	Status-patented, pending, abandoned
----------------	-------------	-------------------------------------

I hereby appoint the following to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

Ted Masters Reg. No. 36,209

Address all telephone calls to: Ted Masters at (661) 255-2333

Address all correspondence to:
23344 8th Street
Newhall, CA 91321

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under §1001 of Title 18 of United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of first sole inventor: **Samuel Richardson III**

Citizenship: USA

First Inventor's Signature

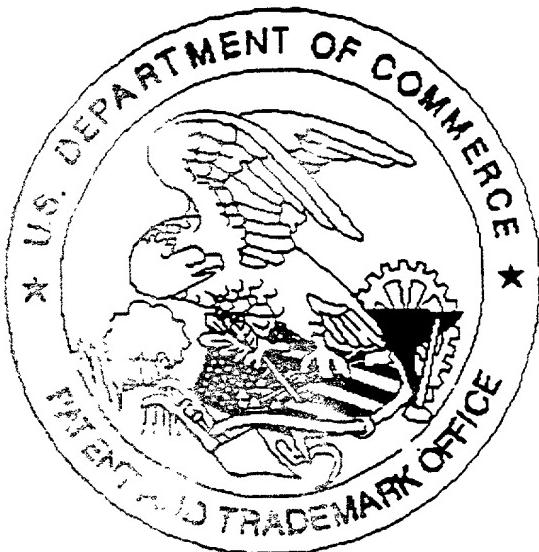
Date 5/24/00

Residence Address and Post Office Address:

Please fill in your address

Samuel Richardson III
202 Bexley Lane
Piscataway, New Jersey 08854

United States Patent & Trademark Office
Office of Initial Patent Examination -- Scanning Division



Application deficiencies were found during scanning:

Page(s) _____ of _____ were not present
for scanning. (Document title)

Page(s) _____ of _____ were not present
for scanning. (Document title)

Drawing page 3 was scanned straight
but appears crooked on screen due to
an enhancement malfunction.

Scanned copy is best available.